

Middle East Lepidoptera, XXXIV: More new species of Noctuidae (Lep.) from Africa and Arabia, with further records of Lepidoptera from the Sudan

by E. P. Wiltshire

In my thirty-first article in this series (1974), I listed some *Noctuidae* taken by Dr. R. Remane in the Sudan, describing two as new. The Zoological Museum at Munich later kindly sent me further *Noctuidae* and *Geometridae* from the Sudan. The study of these has been much delayed but I am now able to list them; seven forms are described hereunder as new species all belonging to the *Noctuidae*, both *Trifinae* and *Quadrifinae*. The holotypes are now again lodged with the Museum at Munich. A search in the British Museum (Natural History), London, revealed undetermined examples from various parts of Africa of some of these same new species; these are cited hereunder as paratypes. A related form from Arabia is introduced as an eighth new species.

These studies have incidentally revealed the identity of two previously published but undetermined genitalia figures of species belonging to the Noctuid sub-family *Jaspidiinae*, from the Cap Verde Islands.

This lot of moths presents a distinctly Ethiopian aspect; they cannot be considered Palearctic. A number were previously only known from India and so are new to Africa. Most, probably all, belong rather to the arid Tropical than the rain-forest component of the Paletropical Fauna.

Abbreviations of Sudanese Localities (other localities are given in full)

- Erk. = Kassala Province, Erkowit (1000—1300 m.) leg. R. Remane.
 Hud. = Ed Damer, Hudeiba, leg. R. Remane.
 Kad. = Kordofan, Kadugli, leg. H. Schmutterer.
 Med. = Blue Nile Province, Wadi Medani, leg. R. Remane.
 Toz. = Blue Nile Province, Tozi, leg. H. Schmutterer.

Family: NOCTUIDAE Sub-family: Hadeninae

Craterestra sufficiens A. E. Prout.

1 ♀, Erk., 18. iv. 62. This species, described from E. Tanganyika in the above genus in 1921, Bull. Hill. Mus. 1: 119, may perhaps be referable to the genus *Mythimna*.

Sub-family: Acronictinae (= Zenobiinae)

Iambiodes postpallida sp. n. (fig. 4, ♂ gen. fig. A)

The pale, faintly marked hind-wing distinguishes this from other *Iambia* or *Iambiodes* species.

Antenna (♀), with short ciliations. Frons, with ovalringed truncated prominence.

Fore-wing, rosy grey marked with dark fuscous. Costa, marked with black streaks at start of basal line, ante-median fascia, median line, and post-median fascia, the last two streaks being close together; also with two or three smaller, paler subapical spots. Basal line, obsolete. Ante-median fascia, grey, edged with black on either side, bent inwards and angled on the median nervure, straight and oblique thereunder, then strongly sinuous before the hind margin, which it reaches at almost $\frac{1}{2}$; it is here preceded by a blackish streak parallel to this margin. Median line, smoky, fine, but distinct throughout, touching the reniform stigma, and reaching the hind margin mid-way between the ante- and postmedian fasciae. The median area grades into darker fuscous distally. Post-median fascia, double, pale, with fine fuscous central line and proximal fuscous denticulations, running in

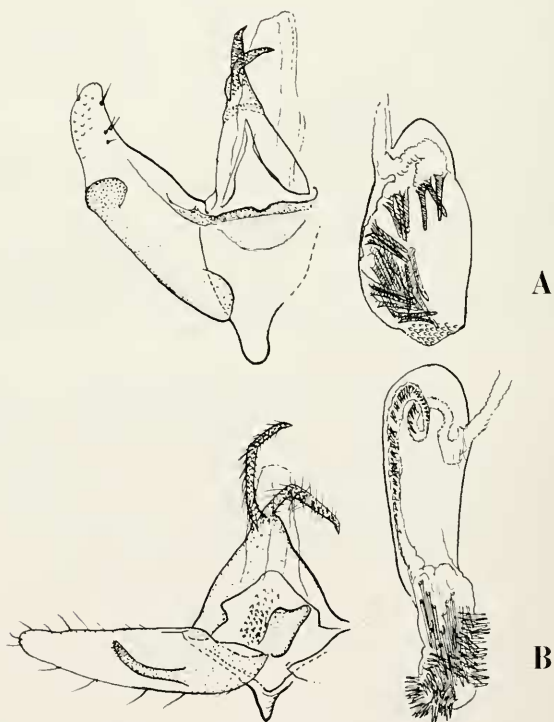


Fig. A. *Iambiodes postpallida* sp. n. ♂ genitalia. Prep. WBM. 30 (Abyssinia, River Ganale.)

Fig. B. *Iambiodes incerta* Roths. ♂ genitalia. Prep. WM. 270. (Sudan).

a smooth curve round the cell, and parallel thereafter to the median line and the outer margin. The course of this line and the median shade are the easiest diagnostic character of the moth from relatives, in addition to the hind-wing colouring. Orbicular stigma, circular, pale, fuscous-edged distally; reniform stigma, almost a hemisphere, rosy grey, black-edged with one paler point inside the proximal edge. Subapical triangle on costa, grey, bounded distally with a short subapical pale line with blackish arrow marks on the nervures; this line reappears as a wavy pale submarginal line in a broad grey submarginal field. Termen, pale ochreous, edged with fuscous proximally. Fringe, grey and fuscous. Hind-wing, much paler, whitish, with cloudy grey medial line and terminal suffusion running up the nervures.

Under-side of fore-wing, paler, speckled with brownish and less distinctly marked, than upper-side; of hind-wing, whitish, hardly marked.

Male genitalia: — bifid uncus, shorter than in many *Iambia* and *Iambiodes* species; harpes rather anvil-shaped than fingerlike as in many *Iambia* and *Iambiodes* species; the figures shew this and *Iambiodes incerta* Roths. for comparison. The latter also differs in having finer, shorter cornuti than *postpallida*.

Span: 19—24 mm.

H o l o t y p e, ♀, Med., 3. viii. 62; para-type ♀, Hud., 28. vii. 62.

The following paratypes from Abyssinia have a more lilac-grey, less brownish, fore-wing submarginal field, but until more material from the Sudan is available to show the range of variation, I refrain from naming a second subspecies.

Paratypes: ♂ (Prep. WBM. 30) Ganale River, 12. iv. 1901 (C. V. E r l a n g e r); 2 ♀♀, Ganale River, 23. iv. 1901 (C. V. E r l a n g e r); and ♀, Dire-Dawa, v. 1935 (H. U h l e n h u t h); all in coll. British Museum (N. H.), London.

Iambiodes incerta Roths. (♂ gen. fig. B)

3 ♂♂ (Prep. WM. 270), Med., 2 & 3. viii. 62; 1 ♂, Hud., 9. v. 62.

Callopistria antithetica sp. n. (fig. 1, ♂ gen fig. C)

The contrast between the dark median area and the paler areas of the fore-wing this species impossible to confuse with any other species in this numerous genus.

Antenna, missing. Tongue, very short. Head and palp, light brown mixed with blackish brown. Legs, light brown, banded with blackish brown. Abdomen, dark grey above, with blackish dorsal tufts; paler ventrally.

Fore-wing, outward bent at end of nervures 3 & 4; light bistre, strongly marked with blackish brown, especially the median area and along the costa and outer margin.; the median area, however, becomes somewhat lighter brown towards the hind margin. Basal area, bistre, irregularly marked with blackish. Ante- and post-median fasciae consist of a pale central band, finely edged on either side with blackish; the central band is also infuscated costad. Orbicular stigma, obscure; reniform stigma, a fine whitish oval with grey linear centre, set obliquely to costa. Costa, with three fine whitish spots at and after the post-median fascia. Submarginal line sharply undulating, pure white subapically, and as far as nervure 4, where a broad oblique white streak interrupts the termen, but continuing beyond this point as a faint greyish undulating line. Termen, a fine white line edged on either side with blackish. Fringe, blackish.



Fig. C. *Callopietria antithetica* sp. n. ♂ genitalia. Prep. WM. 273. (Sudan).

Hind-wing, greyish, browner marginad, with nervures slightly grey-marked and with discal spot a diffuse grey lunule.

Under-sides, fore-wing, brownish and pale bistre, less clearly marked than upper-side; hind-wing, whitish with brown discal spot and post-median line, more conspicuous than on upper side.

Span: 24 mm.

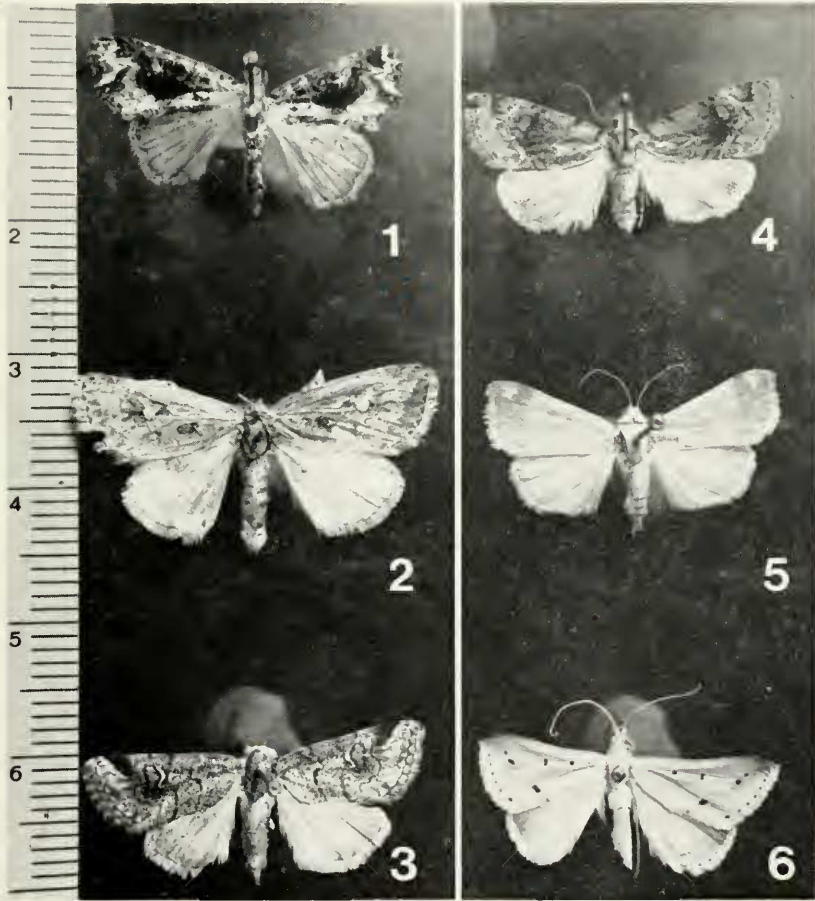
Genitalia ♂: uncus, mandibulate; valves, large, simple, triangular, weakly sclerotised except on the costa, reaching to level of the uncus; at their base, paired thumb-shaped structures, only slightly setose (? rudimentary coremata?); saccus, sub-triangular; sacculus of valve, undeveloped; aedeagus, vesica with numerous small cornuti arranged side by side in a rather long field extending for the distal half of the aedeagus, with a cluster of similar cornuti in an adjacent group, less linear.

H o l o t y p e, ♂, (Prep. W. M. 273), Kad., 29. vi. 62.

Catamecia kordofana sp. n. (fig. 2)

A very distinctive species, intermediate in size between *minima* Swinhoe and *Anamecia deceptrix* Staudinger, coloured a warmer rosy brown, with conspicuous white reniform stigma.

Frons, with truncate cylindrical prominence with rim and central nipple. Antenna (♀), short-setose, ciliate. Tongue, lacking. Palp and head, with dark brown scales.



- Fig. 1. *Calloplistria antithetica* sp. n. ♂. (Prep. WM. 273) (Sudan).
Fig. 2. *Catamecia kordofana* sp. n. ♀. (Sudan).
Fig. 3. *Brevipecten niloticus* sp. n. ♂. (Prep. WM. 272) (Sudan).
Fig. 4. *Iamboides postpallida* sp. n. ♀. (Sudan).
Fig. 5. *Crypsotidia remanei* sp. n. ♀. (Sudan).
Fig. 6. *Gesonia nigripalpa* sp. n. ♂. (Prep. WM. 271) (Sudan).

Fore-wing, rosy-brown, with darker sepia-brown shading. Orbicular stigma, spear-head-shaped, obscure; reniform stigma, V-shaped, clear, whitish, contrasting with darker cellular shade; claviform stigma, dark, short, distinct. Antemedian line, obsolete. Postmedian line, denticulate, fuscous proximally. Submarginal line, running from apex to tornus, slightly denticulate with white points on nervures 3 & 4; subterminal field, infuscated. Termen, edged proximally with fuscous.

Hind-wing, dirty white with fine fuscous termen, the latter decorated with fine dark interneural crescents; fringe, whitish.

Under-side, both wings, coloured as upper-side but less marked, except for termen and fringe.

Span: 29 mm.

H o l o t y p e , ♀, Kad., 24. viii. 69; Paratype ♀, Toz., 10. x. 60.

Caradrina clavipalpis Scop.

2 ♀♀, Hud., 25. i. & 4. ii. 1962; 1 ♂, Hud., 14. iv. 1962.

Caradrina signa Fletcher

2 ♀♀, Erk., 20. & 23. iv. 1962.

Sub-family **Jaspidiinae** (*Erastrinae*)

Metachrostis ("Eublemma") **quinaria** Moore.

1 ex., Hud., 17. viii. 62.

Eublemma rubripuncta Hampson

1 ex., Med., 2. viii. 62.

Porphyrinia colla Swinhoe

1 ♂, Hud., 15. viii. 62.

Porphyrinia (?) **albidior** Roths.

1 ♂ (Prep. WM. 264), Hud., 9. viii. 1962.

Autoba teilhardi Joannis

1 ♀, Hud., 17. viii. 62.

Lithacodia blandula Guenee

2 exs., Med., 2 & 3. viii. 62.

Hiccoda dosarioides Moore

17 ex., Med., 2-3. viii. 61.

Xanthograpta trilatalis Swinhoe f. **desaica** Strand

5 exs., Hud., 12-17. viii. 62.

Ozarba semitorrida Hampson

1 ex., Erk., 30. vi. 62.

Ozarba exoplaga Berio

1 ♂ (Prep. WM. 268), Hud., 16. ii. 62.

Ozarba rufula Hampson

1 ♂, Med., 2. viii. 62.

Ozarba phlebitis Hampson

2 ♂♂ (Prep. WM. 262 & 263) Hud., 31. vii & 16. viii. 62. The genitalia of these two have been compared with syntypes of *Hampson* from Bombay (Prep. WBM. 27). All three are structurally identical but the two Sudanese males show some variability, 263 being darker grey than 262, and the median shade runs a straighter course across the fore-wing. New for Africa! But it occurs in the Cap Verde Is., as *Nyström* (1958) figure 68 of the genitalia of a moth there agrees well with these. The species *Ozarba rubrivena* Hampson also inhabits the Cap Verde Is., as *Nyström's* fig. 65 (of a second undetermined moth from there) agrees well with the genitalia of an example (Prep. WBM. 28) from Nigeria, Zungeru (leg. *Scott-Macfie*) in the British Museum. My studies of this group show that *O. rubrivena* is a subspecies of *venata* Butler (Prep. WBM. 26, from India, Dalhousie) (**stat. nov.!**) but distinct from *phlebitis*. The difference between *venata* and *rubrivena* consists of the number of spines on the ventral tip of the valve, a very small difference.

Ozarba sp.

1 ♀, Erk. 18. iv. 62.

Uncula tristigmatias Hampson

1 ex., Med., 2. viii. 62.

Eupsoropsis robertsi Berio

1 ♀, Hud., 29. vii. 62.

Acontia dichroa Hampson

3 exs., Med., 2, 7, & 9. viii. 62.

Sub-family: SARROTHRIPINAE

Churia sudana sp. n. (fig. 9, ♂ gen. fig. D)

Smaller than *C. ocellata* Butler, from India (fig. 8), with a small reniform stigma which is not round, as in that species, but linear. Compared with *C. maculata* Moore, also from India, but smaller than *C. ocellata*, the ♂ antenna provide a distinguishing character, the ciliations being longer than the shaft breadth in *sudana* and *ocellata*, but shorter in *maculata*.

Head with ciliated antenna (in ♂; ♀ being unknown); tongue, developed; palp, with first two segments prominently grey-scaled, 3rd segment smooth-scaled, correct, dark grey.

Fore-wing, pinkish grey with light fuscous transverse pencillings not forming complete lines but most coherent and darkest between cell and costa, traceable but lighter near the hind margin; in the subterminal area the pencillings form a fairly conspicuous grey shade with wavy proximal border between a black subapical spot close to the outer margin and the tornus; orbicular stigma, a fine black point; reniform stigma, a short black vertical line, slightly grey-suffused. Fringe, yellow-grey.

Hind-wing, yellow-grey, slightly darker marginad, fringes ochreous grey.

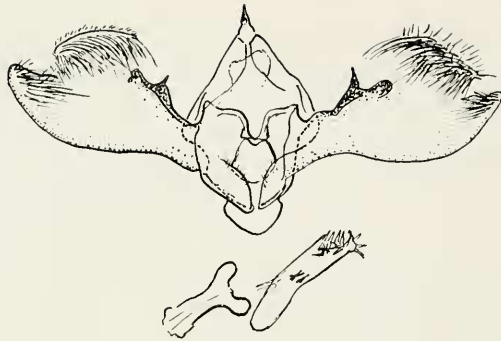


Fig. D. *Churia sudana* sp. n. ♂ genitalia. Prep. WM. 260 (Sudan).

Under-side, both wings, hardly marked pale greyish, brown suffused on the fore-wing towards the costa and termen.

Span: 24 mm.

Genitalia of ♂: uncus, small; tegumen, triangular; saccus, moderate, semi-circular; valve, basally restricted, widening and bifid distally, but not deeply divided; ventral border, smooth; the upper lobe of the valve projects less than the ventral and has a luxuriant cascade-like corona; costa of valve, with two small sclerotised processes close together, the proximal, tapering, the distal, hump-like. Transtilla, strong, saddle-like, but excavated medially. Aedeagus, weak, vesica with a cluster of small distal cornuti and a few more proximal similar cornuti.

Holotype ♂, WM. 260: Hud., 3. xi. 61.

Churia typhla sp. n. (fig. 7)

This new species is larger than *ocellata* Butler and quite lacks the rounded reniform stigma of that species, and differs genitaliter too.

Antenna (♀), missing; tongue, developed; palp, with first two segments with prominent dark grey adpressed scales, and third segment rather shorter, smooth-scaled. Feet, dark grey, and white.

Fore-wing, rosy grey with fuscous powdering and grey transverse pencillings as in many others of the genus, but somewhat darker and more concentrated over the cell, where the stigmata are not to be traced. The paler rosy grey ground colour is clearest in a narrow, curving field from the costa before the apex to the hind margin before the tornus; an obscure black spot at vein 7 near the top of this light field, and a similar spot below v. 2 close to the tornus. Blackish pencillings are traceable along the termen between veins 4 & 7. Fringe, rosy grey.

Hind-wing, yellowish grey, slightly infuscated terminad. Fringe, yellow-grey.

Under-side, fore-wing, whitish brown, indefinitely marked, rather heavily infuscated on the cell and towards the termen; hind-wing, dirty whitish, infuscated terminad between nervure 4 and apex.

Span: 27 mm.

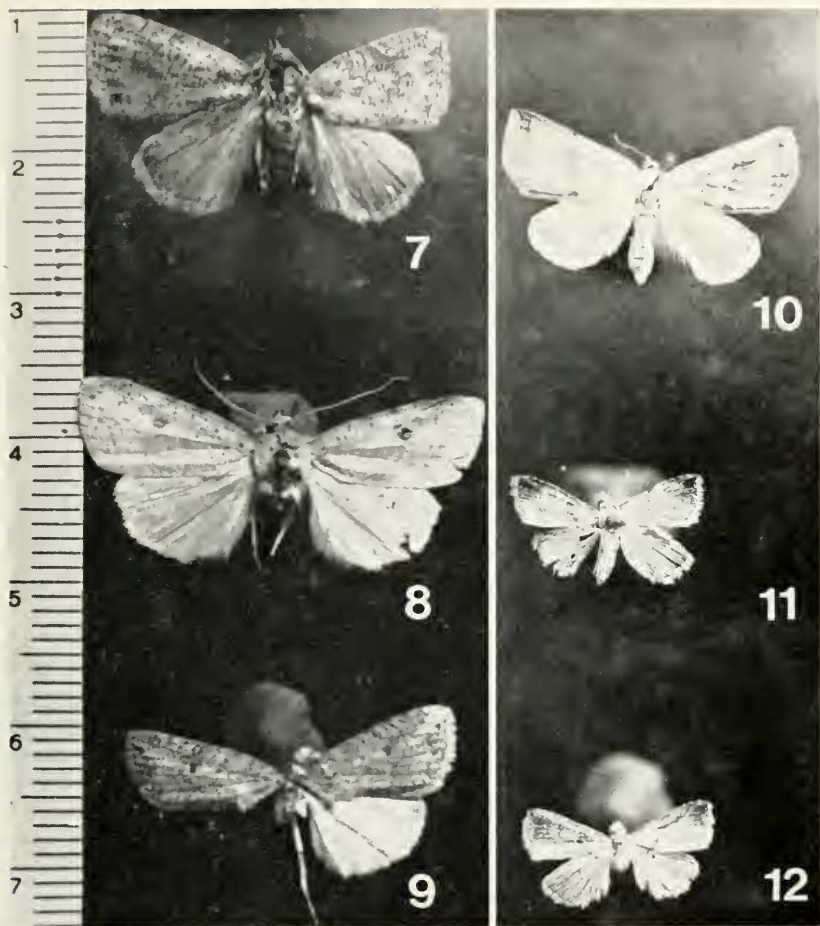


Fig. 7. *Churia typhla* sp. n. ♀. (Prep. 1805) (Arabia, Asir).
 Fig. 8. *Churia ocellata* Butler ♀. (N.W. India).
 Fig. 9. *Churia sudana* sp. n. ♂. (Prep. WM. 260) (Sudan).
 Fig. 10. *Antarphaea sopora* Swinhoe ♀. (Sudan).
 Figs. 11, 12. *Rivula continentalis* Gaede, 2 ♀♀. (Prep. WM. 266) (Sudan).

Genitalia of ♀: — bursa copulatrix unsclerotised and without sigma; appendix more prominent than in *ocellata* Butler.

Holotype, ♀: — Prep. 1805. Saudi Arabia (S.-W. Arabia), Asir, Sabya, 5. iii. 1948, (A. R. Waterston), in coll. mea in British Museum (N. H.), London.

Bryophilopsis curvifera Hampson

2 ♂♂ 2 ♀♀, Med., 3. viii. 62.

Neaxestis mesogonia Hampson

1 ex., Kad., 6. x. 1962.

Sub-family: CATOCALINAE

Ctenusa pallida Hampson

1 ♂, Toz., 24. viii. 1959

Crypsotidia remanei sp. n. (fig. 5)

From all *Hypotacha* and *Crypsotidia* species in the British Museum, this new species differs in its lighter ochreous, rather uniform, colouring, with obsolete fore-wing markings from base to post-median fascia; the submarginal area is characterised by wide, diffuse, ochreous-brown border with a well-defined pale triangular sub-apical patch on the costa similar to that of some examples of *conifera* Hampson, but these have a more fuscous border and also a distinct darker fuscous median patch near the hind margin. The hind-wing also is paler and more ochreous than in all those compared, with a slightly ochreous-brown tinge terminad, and white fringe. Under-side, pale straw, with diffuse ochreous-brown marginal shades close to costa of both wings. Span: 22 mm.

H o l o t y p e : ♀, Hud., 30. viii. 1962.

Plecoptera poderis Wallengren

1 ♂, Hud., 17. viii. 1962.

Brevipecten niloticus sp. n. (fig. 3, ♂ gen. fig. E)

This new species comes close to *B. collenettei* (Somaliland) and *B. lunifer* Hampson (Ceylon); the lack of a black shade proximal to the white fore-wing crescent distinguishes it from both; it is also characterised by lack of a black median costal patch and having the forewing post-median line clear and twice bent between cell

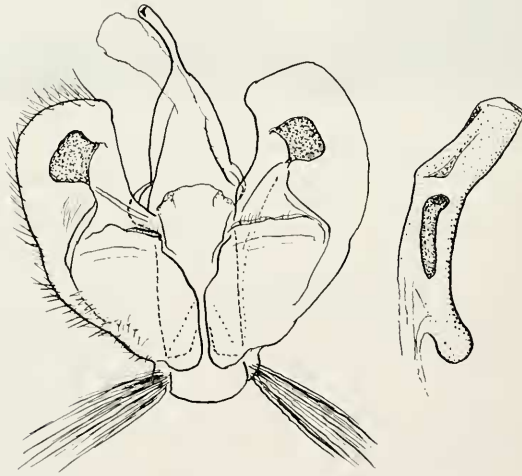


Fig. E. *Brevipecten niloticus* sp. n. ♂ genitalia. Prep. WM. 272. (Sudan).

and hind margin. The evenly curved outer margin of the fore-wing seems to be the best superficial character distinguishing this genus from the very similar genus *Androlymmia* Hampson, placed as a subgenus of *Elydna* Walker, in the *Zenobiinae*. These have fore-wing outer margin angled at nervure 4 (e. g. *A. emarginata* Hampson [Ceylon].)

Head, peppered with black and white scales, appearing grey; palps, similar, more infuscated laterally and white ventrally and basad. Trunk, well developed. Antenna of ♂, bipectinated to half way; of ♀, simple. Fore-leg, peppered, black and white; mid tibia sheathed in similarly peppered scales, white ventrally; hind-leg, mostly white. Breast with long white hairs, femora mostly white but the scales and hairs contain a few black scales.

Thorax and fore-wing, pale grey heavily scattered with black scales, appearing slate-grey, the only white feature being the narrow crescent which forms the proximal sector of the black-edged grey reniform stigma. Orbicular stigma, lacking. Three clear black cross-lines can be traced on the fore-wing, including the fine median shade. Ante-median line, curved out below the cell; median shade parallel to it, just touching the proximal edge of the reniform stigma. Post-median line, beginning on the costa just above this stigma, then out-curved in two bulges round it, incurved at nervure 2 and reaching the hind-margin close to the median shade. A subapical fuscous triangle on the costa is distally edged with a pale grey, oblique line which does not continue any further. Termen, a fine, wavy black line, closely preceded by a faint grey ante-terminal line or shade. Fringe, pale grey, chequered with dark grey.

Hind-wing, of ♂, yellowish white; of ♀, yellowish grey; with fuscous terminal, slightly wavy, line, and white fringe.

Under-side, both wings, without clear markings, whitish brown or grey, infuscated marginad on the fore-wing.

Span: 26 mm.

Male genitalia: uncus, clavate with fine point at tip; tegumen, normal; transtilla, strong, castellated; valves with sclerotised anvil-shaped harpe, orientated distal-ventrally but not overlapping valve edge; valve tips, smoothly curved ventrally, sub-rectangular dorsally. Coremata at valve-base, moderate. Aedeagus, bent ventrally at $\frac{2}{3}$, with a blunt long cornutus about one third of its total length.

H o l o t y p e ♂, (Prep. WM. 272) Med., 2. viii. 62.

A l l o t y p e ♀, Khartoum, 21. vi. 30 (B e d f o r d), in British Museum (Natural History), London.

Antarchaea sopora Swinhoe (fig. 10)

1 ♀, Med., 3. viii. 1962

Antarchaea conicephala Staudinger

6 ex., Hud., (2 ex. 21. xi. 61; 1 ex., 8. iv & 2 exs., 14. iv. 62; & 1 ex., 16. viii. 1962).

Gesonia nigripalpa sp. n. (fig. 6, ♂ gen. fig. G)

The absence of cross-lines on the black-spotted upper-sides distinguish this new species from congeners; the black palp is also characteristic.

Antenna of ♂, ciliate. Head and thorax, ochreous, except for palp, which is coal-black, the short third segment however being ochreous-tipped.

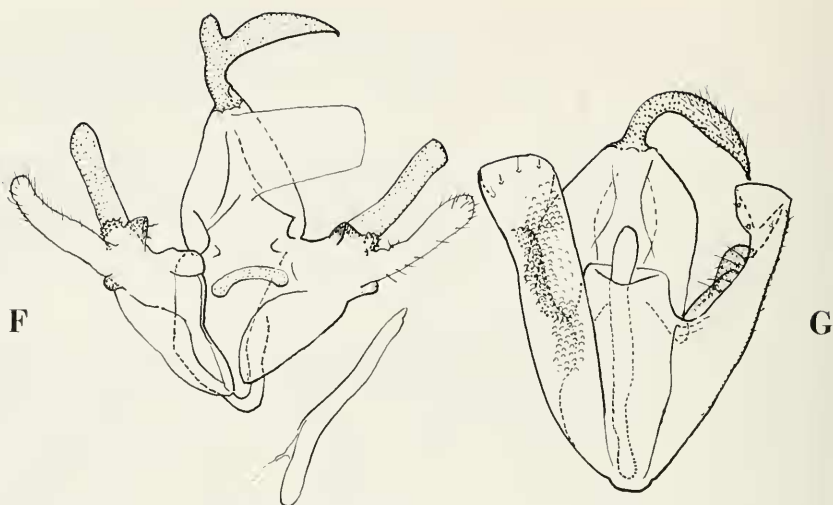


Fig. F. *Gesonia obeditalis* Walker. ♂ genitalia. Prep. WBM. 16. (India).
 Fig. G. *Gesonia nigripalpa* sp. n. ♂ genitalia. Prep. WM. 271. (Sudan).

Fore-wing, typically ochreous straw to light brown, with prominent black spotting arranged as in *G. inscitia* Swinhoe ab. *notata* Hampson, i. e.: — two small spots in the cell above the median nervure, and four others placed on a notional oblique line from apex to middle of hind margin; of these, the third spot from the apex is the largest and is on nervure 2. There is also a terminal series of small black points. In the holotype the straw colouring is infused with brown only apicad, but in the Senegal examples the general colouring is sienna rather than straw; in the one example from Kurra both fore-wing and hind-wing are uniformly dull brown and I suggest for this the name **fumata** f. n.; further material is required to show whether this name represents an aberration or a subspecies.

Hind-wing, typically straw, more widely infuscated apicad than the fore-wing; on the sector of the margin free from infuscation there are four terminal black points; there are also two black spots on a notional post-median fascia near the inner margin.

(In *G. inscitia* ab. *notata* the hind-wing has two or three well-marked fasciae and is not infuscated apicad; it lacks black terminal points. *G. stictigamma* Hampson is a larger species, pink-grey and rather uniformly smoky, but in spotting and apical suffusion it somewhat resembles the new species.)

Under-side, both wings, smoky brown suffused.

Span: — 23-24 mm.

The male genitalia of the new species show affinity rather to *inscitia* Swinhoe (fig. H), a widespread Asian species, than to *stictigamma* Hampson, an East African species, and *obeditalis* Walker (fig. F), a widespread Palearctic species. The last two are characterised by the bifid valvcs, but *inscitia* and *nigripalpa* lack the sclerotised costal processes. The new species differs from *inscitia* in being smaller-

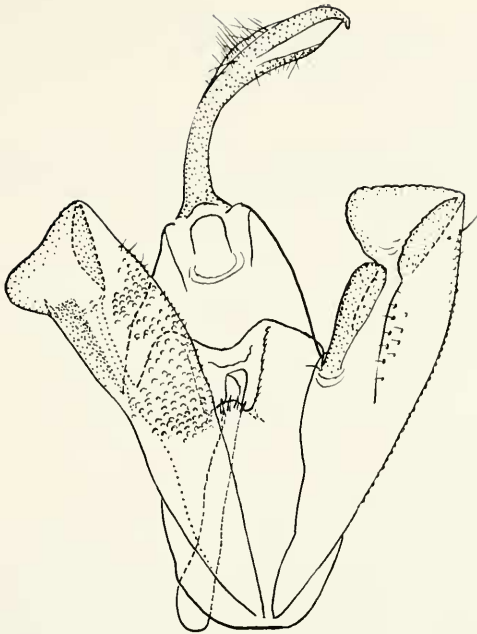


Fig. H. *Gesonia inscitia* Swinhoe. ♂ genitalia. Prep. WBM. 34. (Formosa).



Fig. J. *Rivula continentalis* Gaede. ♀ genitalia. Prep. WM. 266. (Sudan).

built, with more elegant cygnate uncus, less broad-shouldered transtilla, and proportionately larger thumb-shaped harpe.

H o l o t y p e ♂ (Prep. WM. 271): Med., 3. viii. 1962.

P a r a t y p e s : 1 ♂ (Prep. WBM. 31), Sudan: W. Darfur, N. Jebel, Murra, Kurra, 5,600 ft., 4. viii. 1932, (M. Steele) (= H o l o t y p e of *f. fumata*); and

2 ♂♂ 2 ♀♀, Senegal, Kaolack, ex. coll. L e M o u l t , ex coll. E d. B r a b a n t 1920; these paratypes are all three in the British Museum (Nat. Hist.) London. They agree genitally with the holotype.

Gesonia obeditalis Walker

3 ♂♂ 3 ♀♀ (Prep. WM. 257), Med., 2. viii. 1962.

Rivula continentalis Gaede (figs. 11, 12, ♂ gen. fig. J.)

2 ♀♀, (Prep. WM. 266), Hud., 10 x. & 11. xi. 61.

Rhesala maestalis Walker

17 exs., Med., 3. viii. 62.

Famili: GEOMETRIDAE

Acidaliastis micra Hampson

6 exs., Hud., ii, iii, vii, viii, xii.

Oar pratana F.

4 exs., Hud., (1 ex. xii. 61, & 3 exs. v. 62)

Semiothisa aestimaria sareptana Stgr.

2 exs. (Prep. WM. 259), Hud., 12. iii. 62.

Semiothisa sudanata Warren & Rothschild

2 exs. (Prep. WM. 258), Hud., 15 & 22. iii. 62.

Tephрина sublimbata Butler

3 exs., Hud., ii & iii. 62,

Tephрина pulinda deerraria Walker

3 ♂♂ 3 ♀♀ (Preps. WM. 265 & 267), Hud., vi-viii. 62.

Tephрина disputaria Guenee

4 ♂♂ 4 ♀♀ (Prep. WM. 267), Hud., i, ii, & vii.

Tephрина quadriplaga Rothschild

2 ♂♂ (Prep. WM. 261) Hud., 27. iv. 62.

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W i l t s h i r e , E. P., 1974. Middle East Lepidoptera XXXI. (Mitt. Münch. ent. Ges., 63 [“1973”] 42—48. 1 Pl. 2 figs.)

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